



48/50TJ-C1SB

**48TJD/TJF/TJL/TJN016, 024, 028
SINGLE-PACKAGE COOLING UNITS WITH
FACTORY-INSTALLED GAS HEAT**

**50TJ016, 020, 024, 028, 030
SINGLE-PACKAGE COOLING UNITS WITH
FACTORY-INSTALLED OPTIONAL ELECTRIC HEAT**

- PERFORMANCE DATA**
- CERTIFIED DIMENSION PRINT**
- CERTIFIED ROOF CURB
DIMENSION PRINT**
- HORIZONTAL SUPPLY/RETURN
ADAPTER ROOF CURB
DIMENSION PRINT**
- SERVICE OPTION DIMENSION PRINT**

50 Hz



Date:	Supersedes:	48TJ016,024,028; 50TJ016,024,028,030 SINGLE-PACKAGE COOLING UNITS WITH GAS HEAT (48TJ) OR OPTIONAL ELECTRIC HEAT (50TJ)	48TJ 50TJ	Rev.: -C1SB
JOB NAME:		LOCATION:		
BUYER:		BUYER P.O. #	CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:			DATE:	
<p style="text-align: center;">DESCRIPTION</p> <p>The 48TJ units are one-piece electric cooling/gas heating units and the 50TJ units are one-piece electric cooling/optional electric heating units, prewired and precharged. The 48/50TJ units have bottom air openings for separate supply and return ductwork. The 48TJD units are low heat units and the 48TJF units are high heat units. The 48TJL units are low heat units with a stainless steel heat exchanger. The 48TJN units are high heat units with a stainless steel heat exchanger. The unit is intended for installation on an accessory curb (ordered separately). Horizontal supply and return connections are also possible with a factory-preassembled, horizontal conversion adapter roof curb accessory (ordered separately). Bottom discharge on concentric applications requires a transition duct (field-supplied) external to the unit.</p> <p style="text-align: center;">STANDARD UNIT FEATURES</p> <div style="display: flex;"> <div style="flex: 1;"> <p>Low outdoor temperature cooling operation down to 40 F (4 C) on 48/50TJ016, 35 F (2 C) on 48/50TJ020, 25 F (–4 C) on 48/50TJ024, and 48 F (9 C) on 48/50TJ028 and 50TJ030 as standard.</p> <p>Dual freestat protection is provided as standard.</p> <p>Dual scroll compressors with internal linebreak protection.</p> <p>Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless internally grooved copper tubes.</p> <p>Dual TXVs (thermostatic expansion valves) metering devices.</p> <p>Liquid line filter driers provided in each refrigeration circuit.</p> <p>Optional compressor suction and discharge service valves (all).</p> <p>Manually adjustable outside air intake for up to 25% outside air.</p> <p>Automatic changeover (when used with an auto-changeover thermostat).</p> <p>Single-point gas and electric connections. Disconnect in accordance with NEC must be field-supplied and installed.</p> <p>All units utilize 2-stage cooling.</p> <p>Belt drive adjustable evaporator fan.</p> <p>Cabinet made of galvanized steel, bonderized and finished with pre-painted baked enamel.</p> <p>Cooling systems have low and high-pressure switches. Two-inch disposable type return-air filters are factory installed.</p> <p>Provision for alternate end return in base unit. Horizontal supply available by using accessory curb. EconoMi\$erIV may be used with horizontal supply and return.</p> </div> <div style="flex: 1;"> <p>Three direct-drive propeller condenser fans with vertical discharge (48/50TJ016 and 50TJ020).</p> <p>Two direct-drive propeller condenser fans with vertical discharge (48/50TJ024 and 028).</p> <p>Six direct-drive propeller condenser fans with vertical discharge (50TJ030).</p> <p>48TJ UNITS ONLY</p> <p>2-stage gas heat in a single 2-stage gas valve.</p> <p>Induced draft combustion system with Hall effect sensor to detect proper operation of induced-draft motor.</p> <p>Heavy Alumagard™ coated heat exchangers with aluminized steel burners.</p> <p>Optional stainless steel heat exchangers.</p> <p>Heating controls with solid-state direct spark ignition system (pilotless system) and redundant gas valve. High temperature limit switches and auto-reset flame rollout switch standard.</p> <p>Integrated gas control board with built-in diagnostics to determine error codes and control fan on/off delays for energy savings and maximum comfort control.</p> <p>Integrated gas unit controller provides anti-cycle protection for gas heat operation.</p> </div> </div> <p style="text-align: center;">PERFORMANCE DATA</p> <div style="display: flex;"> <div style="flex: 1;"> <p>Unit Operating Weight _____ lb/kg</p> <p>COOLING</p> <p>Gross Total Capacity _____ Btuh/kW at Condenser Air Temperature _____ F/C</p> <p>Gross Sensible Capacity _____ Btuh/kW</p> <p>Compressor Power Input _____ kW</p> <p>Indoor Entering Air db _____ F/C wb _____ F/C</p> <p>Cfm/L/s _____ External Static Pressure _____ in. wg/Pa</p> <p>Indoor Fan Motor Size _____ Hp/kW</p> <p>Exhaust Fan Motor Size _____ Hp/kW</p> </div> <div style="flex: 1;"> <p>Curb Weight _____ lb/kg</p> <p>HEATING</p> <p>Heating Capacity:</p> <p>Gas Stage 1 _____ Btuh/kW</p> <p>Gas Stage 2 _____ Btuh/kW</p> <p>Gas Heating Capacity Total _____ Btuh/kW</p> <p>Electric Stage 1 _____ kW</p> <p>Electric Stage 2 _____ kW</p> <p>Electric Heating Capacity Total _____ kW</p> </div> </div>				

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz
Minimum Circuit Amps _____ Maximum Fuse Amps _____

SUBMITTAL DATA

Job Name _____
Architect _____
Engineer _____
Contractor _____
Unit Designation _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS

- ☐ EconoMi\$er IV
- ☐ Service Option Package (Hinged Access Panels, Non-Fused Disconnect, 115-v Convenience Outlet)
- ☐ Low/High Gas Heat (48TJ Only)

FIELD-INSTALLED ACCESSORIES

- ☐ EconoMi\$er IV
- ☐ Solid-State Enthalpy Control
- ☐ Differential Enthalpy Control
- ☐ Winter Start Package
- ☐ Roof Curb (14-in.)
- ☐ Roof Curb (24-in.)
- ☐ Roof Curb (Horizontal Supply and Return)

FIELD-INSTALLED ACCESSORIES (cont)

- ☐ Factory Preassembled, Horizontal Conversion Adapter Roof Curb
- ☐ Power Exhaust
- ☐ Barometric Relief
- ☐ Thermostat and Subbase
- ☐ Time Guard Device
- ☐ Two-Position Damper Package
- ☐ Motormaster® Control
- ☐ Liquid Propane (LP) Gas Kit (48TJ Only)
- ☐ Hail Guard
- ☐ Hydronic (Glycol) Coil (50TJ Only)
- ☐ Electric Heat (50TJ Only)

CUT ALONG DOTTED LINE

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UNIT	STD. UNIT ECONOMIZER	CORNER	CORNER	CORNER	CORNER	DIM A	DIM B	DIM C
WEIGHT	WEIGHT	A	B	C	D			
48TJD/TJF016	153 LBS 748 KG	423 LBS 192 KG	386 LBS 175 KG	438 LBS 198 KG	438 LBS 198 KG	3'-5" (1067)	3'-5" (1067)	1'-10" (559)
48TJD/TJF020	1800 LBS 816 KG	432 LBS 196 KG	410 LBS 186 KG	465 LBS 211 KG	472 LBS 214 KG	3'-7" (1093)	3'-7" (1093)	1'-8" (508)

DATE
07/28/05

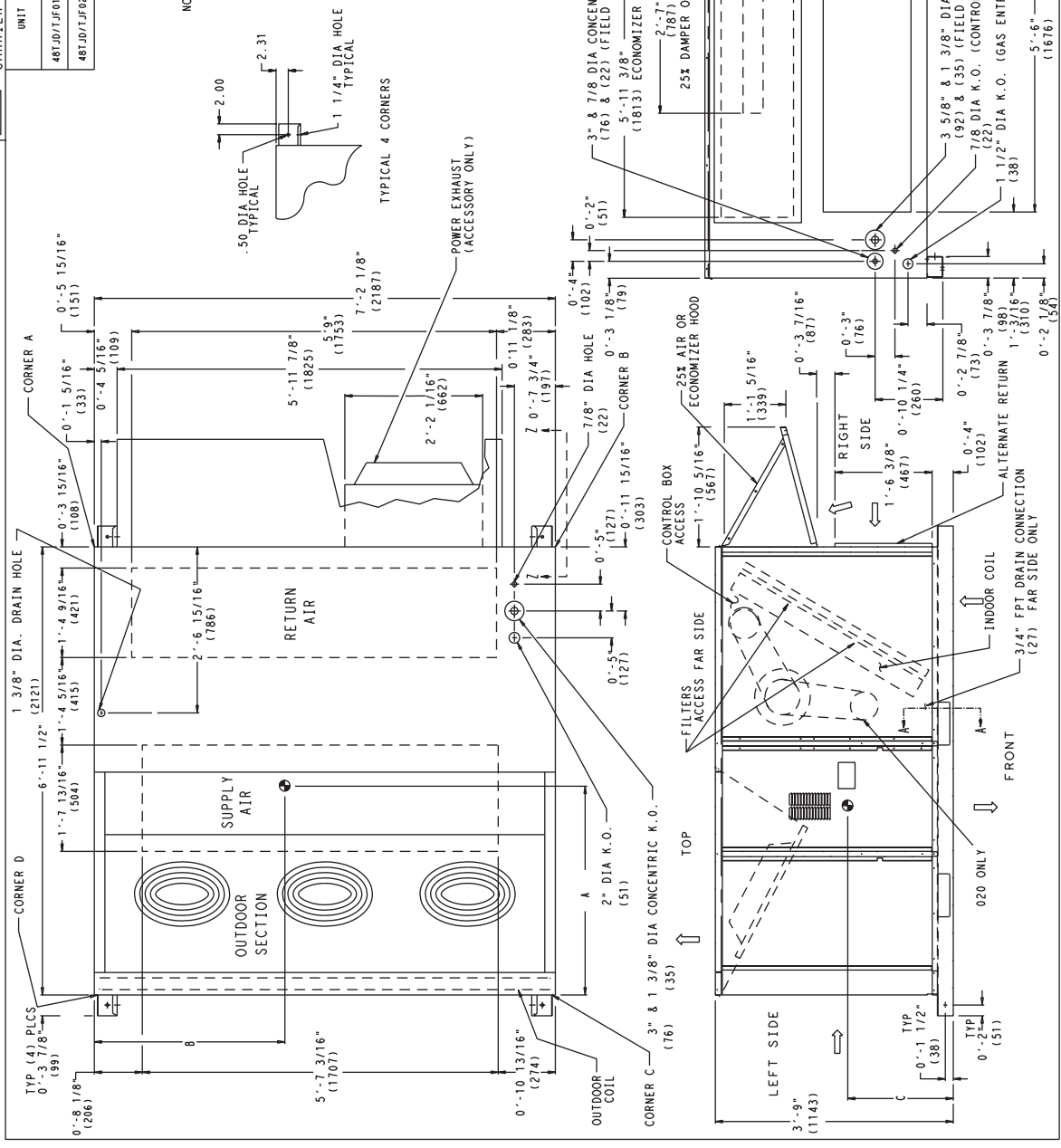
SUPersedes
04/15/02

48TJD/TJF016, 48TJD/TJF020
COMBINATION GAS HEATING/ELECTRIC COOLING UNITS

48TJ500545
REV
2.0

NOTES:

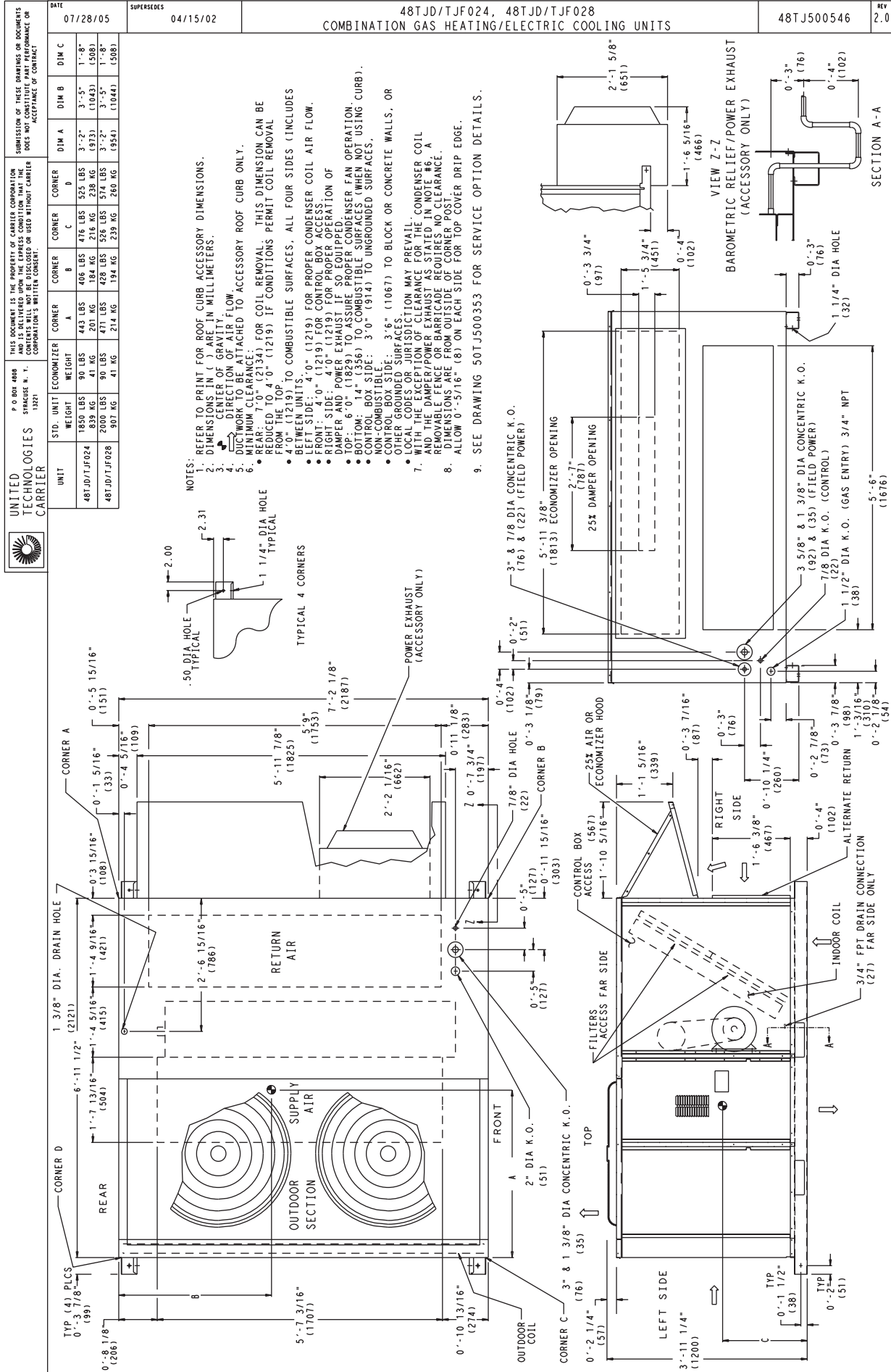
1. REFER TO PRINT FOR ROOF CURB ACCESSORY DIMENSIONS.
2. DIMENSIONS IN () ARE IN MILLIMETERS.
3. CENTER OF GRAVITY FLOW.
4. DUCTWORK BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
5. MINIMUM CLEARANCE:
6. REAR: 7'-0" (2134) FOR COIL REMOVAL. THIS DIMENSION CAN BE REDUCED TO 4'-0" (1219) IF CONDITIONS PERMIT COIL REMOVAL FROM THE TOP.
7. ALL UNITS TO COMBUSTIBLE SURFACES, ALL FOUR SIDES (INCLUDES LEFT SIDE) 2'-0" (610) FOR PROPER CONDENSER COIL AIR FLOW.
8. FRONT: 4'-0" (1219) FOR CONTROL BOX ACCESS.
9. RIGHT SIDE: 4'-0" (1219) FOR PROPER OPERATION OF DAMPER AND POWER EXHAUST IF SO EQUIPPED.
10. TOP: 6'-0" (1829) TO ASSURE PROPER CONDENSER FAN OPERATION.
11. BOTTOM: 4'-0" (1219) TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB).
12. CONTROL BOX SIDE: 3'-0" (914) TO UNGROUNDED SURFACES.
13. NON-COMBUSTIBLE: 3'-0" (914) TO UNGROUNDED SURFACES.
14. CONTROL BOX SIDE: 3'-6" (1067) TO BLOCK OR CONCRETE WALLS, OR OTHER GROUNDED SURFACES.
15. LOCAL CODES OR JURISDICTION MAY PREVAIL.
16. WITH THE EXCEPTION OF CLEARANCE FOR THE CONDENSER COIL AND THE DAMPER/POWER EXHAUST AS STATED IN NOTE #6, A MINIMUM CLEARANCE OF 1'-0" (305) IS REQUIRED FOR ALL OTHER CLEARANCES.
17. DIMENSIONS ARE FROM OUTSIDE OF CORNER POST.
18. ALLOW 0'-5/16" (8) ON EACH SIDE FOR TOP COVER DRIP EDGE.
19. SEE DRAWING 50TJ500352 FOR SERVICE OPTION DETAILS.



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CERTIFIED DIMENSION PRINT



CERTIFIED DIMENSION PRINT



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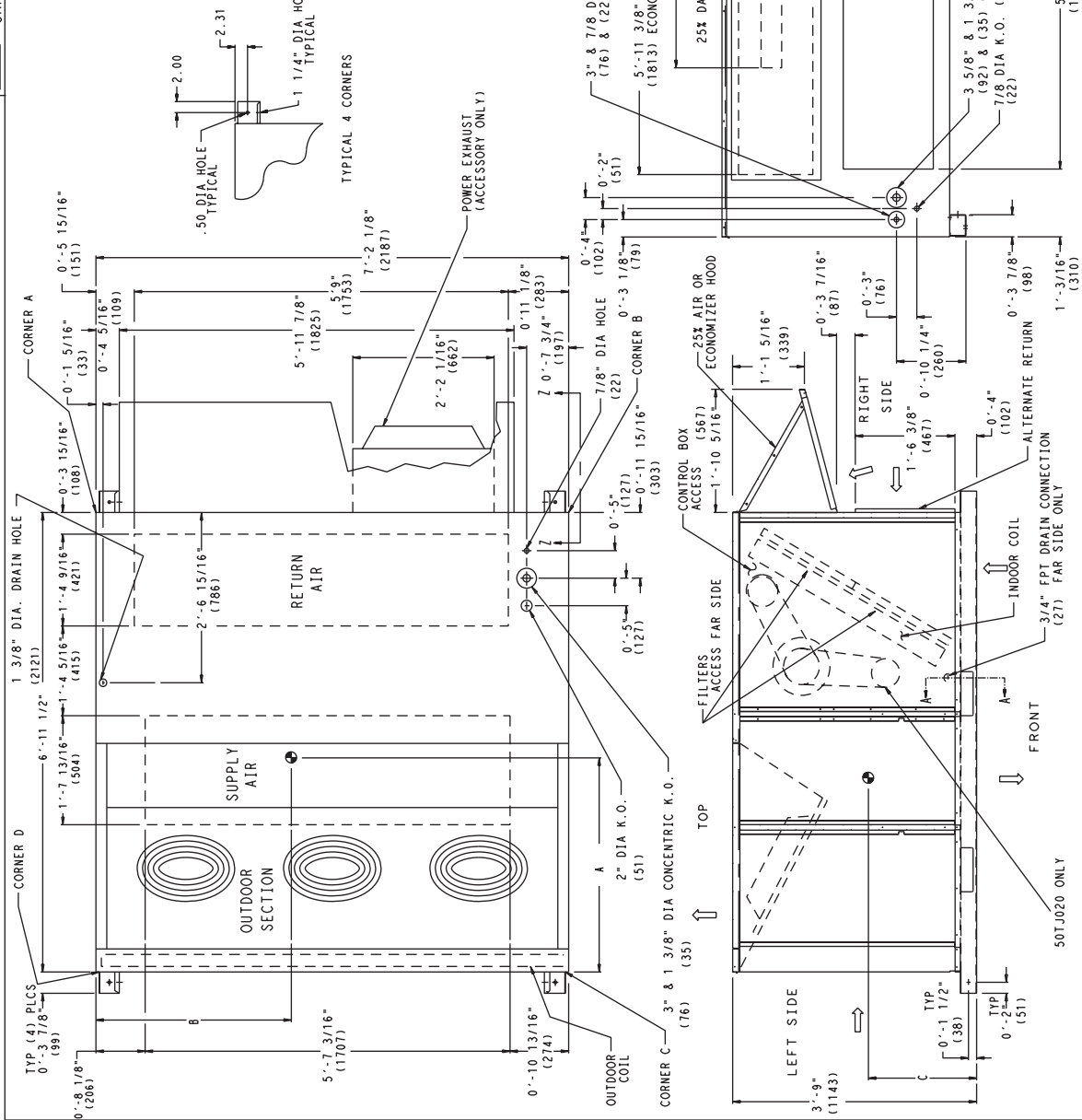
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UNIT	STD. UNIT WEIGHT	ECONOMIZER WEIGHT	CORNER A	CORNER B	CORNER C	CORNER D	DIM A	DIM B	DIM C
50TJ016	1500 LBS	90 LBS	374 LBS	374 LBS	374 LBS	374 LBS	3'-6"	3'-7"	1'-10"
50TJ016	680 KG	41 KG	170 KG	170 KG	170 KG	170 KG	(1054)	(1056)	(559)
50TJ020	1650 LBS	90 LBS	380 LBS	380 LBS	403 LBS	403 LBS	3'-4"	3'-9"	1'-8"
50TJ020	748 KG	41 KG	172 KG	183 KG	198 KG	184 KG	(1106)	(1147)	(508)

DATE	SUPPESIDES	50TJ016,020	COMBINATION ELECTRIC HEATING/COOLING UNITS	50TJ500624	REV
07/28/05	04/15/02				2.0



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CERTIFIED DIMENSION PRINT





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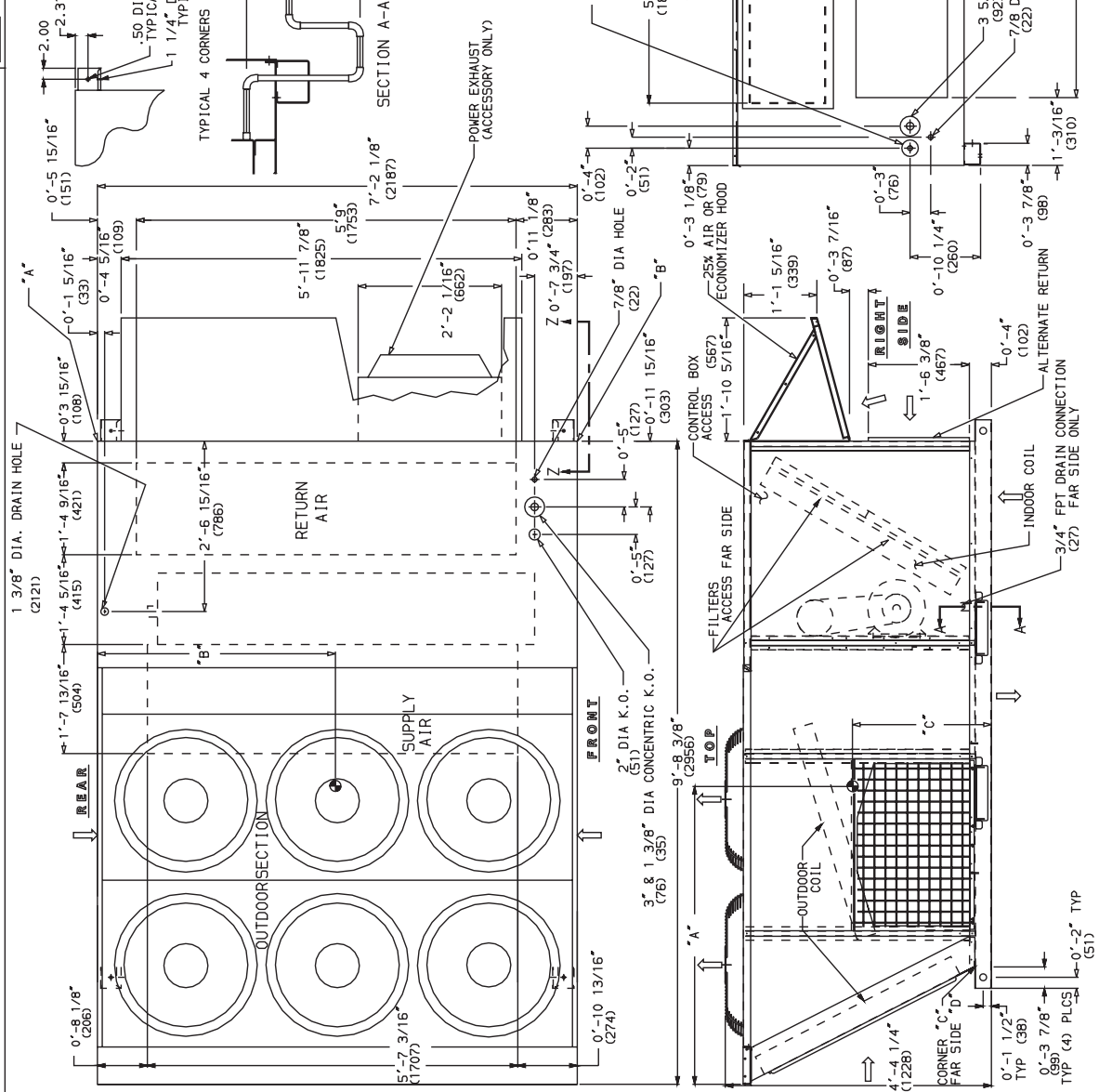
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UNIT	STD. UNIT WEIGHT	ECONOMIZER WEIGHT	CORNER A	CORNER B	CORNER C	CORNER D	DIM A	DIM B	DIM C
50TM028	2120 LBS 964 KG	80 LBS 36 KG	497 LBS 226 KG	490 LBS 223 KG	530 LBS 241 KG	553 LBS 251 KG	4'-6" (1372)	9'-7 1/4" (2461)	1'-1 1/4" (641)
50TJ030	2220 LBS 1007 KG	80 LBS 36 KG	546 LBS 248 KG	537 LBS 244 KG	593 LBS 264 KG	606 LBS 275 KG	4'-6" (1372)	9'-7 1/4" (2461)	1'-1 1/4" (641)

50TM028, 50TJ030

- NOTES:
- REFER TO PRINT FOR ROOF CURB ACCESSORY DIMENSIONS.
 - DIMENSIONS IN () ARE IN MILLIMETERS.
 - DIRECTION OF GRAVITY.
 - DIRECTION OF AIR FLOW.
 - DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
 - MINIMUM CLEARANCE:
7'-0" (2134) FOR COIL REMOVAL. THIS DIMENSION CAN BE REDUCED TO 4'-0" (1219) IF CONDITIONS PERMIT COIL REMOVAL FROM THE TOP.
LEFT SIDE: 4'-0" (1219) FOR PROPER CONDENSER COIL AIR FLOW.
FRONT: 4'-0" (1219) FOR CONTROL BOX ACCESS.
RIGHT SIDE: 4'-0" (1219) FOR PROPER OPERATION OF DAMPER AND EXHAUST TO ASSURE PROPER CONDENSER FAN OPERATION. TOPPER AND CURB TO BE REMOVED TO PERMIT COIL REMOVAL. LOCAL CODES OR JURISDICTION MAY PREVAIL.
7. WITH THE EXCEPTION OF CLEARANCE FOR THE CONDENSER COIL REMOVAL, THE DAMPER/POWER EXHAUST AS STATED IN NOTE #6, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
8. DIMENSIONS ARE FROM OUTSIDE OF CORNER POST.
9. ALLOW 0'-5 1/16" (8) ON EACH SIDE FOR TOP COVER DRIP EDGE.
10. A 90 DEGREE ELBOW MUST BE INSTALLED ON THE SUPPLY DUCTWORK BELOW THE UNIT DISCHARGE FOR UNITS EQUIPPED WITH ELECTRIC HEATERS



50TM028, 50TJ030
COMBINATION ELECTRIC HEATING/COOLING UNITS

50TJ500994
REV B


CUT ALONG DOTTED LINE

CERTIFIED ROOF CURB DIMENSION PRINT

9

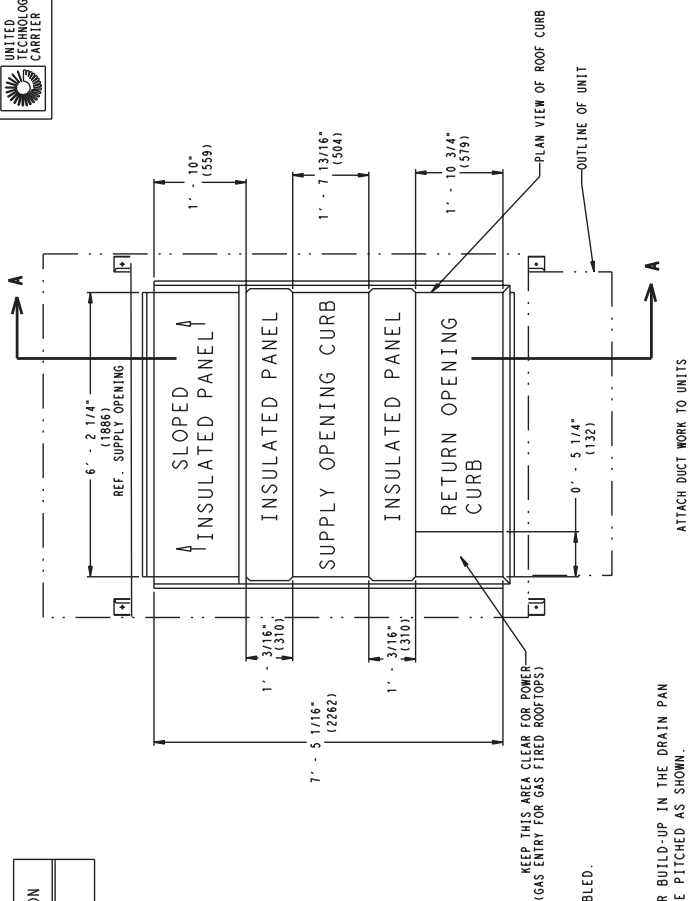
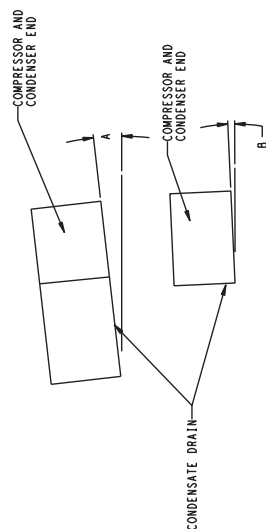
50TJ030

ROOFCURB ACCESSORY	CURB HEIGHT	DESCRIPTION
CRRFCURB025A00	1' - 2" [356]	ROOF CURB 14" HIGH

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UNIT	A		B	
	DEG.	IN.	DEG.	IN.
ALL	.28	.45	.28	.43

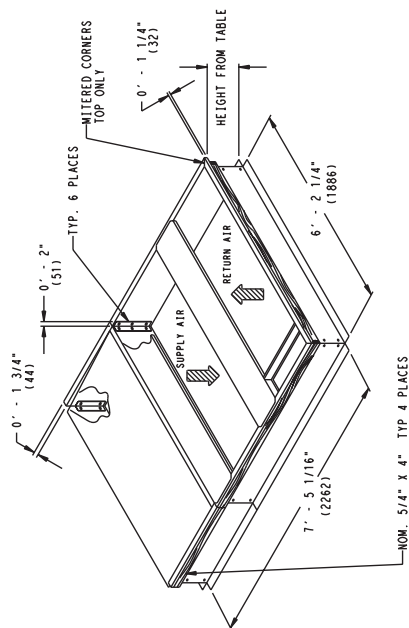
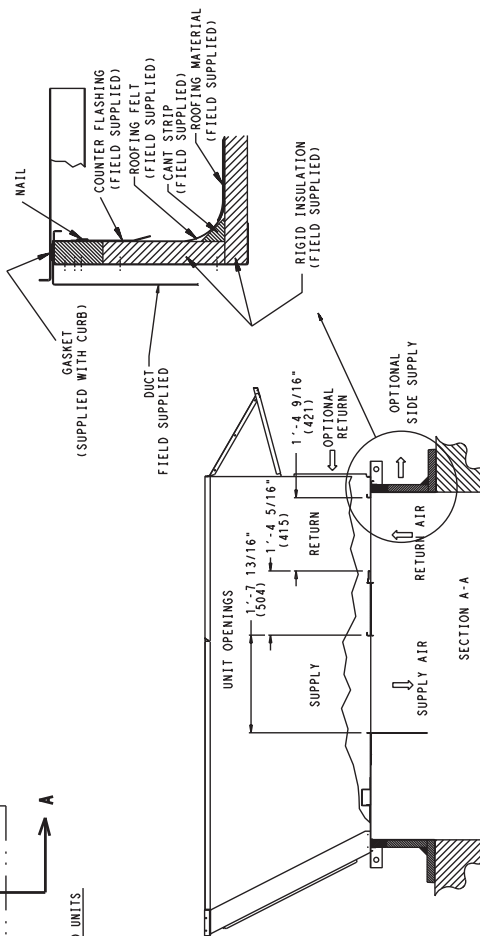
MAX CURB LEVELING TOLERANCES:
FROM EDGE OF UNIT TO HORIZONTAL



KEEP THIS AREA CLEAR FOR POWER—
(GAS ENTRY FOR GAS FIRED ROOFTOPS)

NOTES:

1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. DIMENSIONS IN () ARE IN MILLIMETERS.
3.  DIRECTION OF AIRFLOW.
4. ROOF CURB: 16 GA. (VA03-56) STEEL.
5. TO PREVENT THE HAZARD OF STAGNANT WATER BUILD-UP IN THE DRAIN PAN OF THE INDOOR SECTION, UNIT CAN ONLY BE PITCHED AS SHOWN.
6. INSULATED PANELS: 1" THICK NEOPRENE COATED 1-1/2 LB DENSITY.
7. A 90° ELBOW MUST BE INSTALLED ON THE SUPPLY DUCT WORK BELOW THE UNIT DISCHARGE FOR UNITS EQUIPPED WITH ELECTRIC HEATERS.

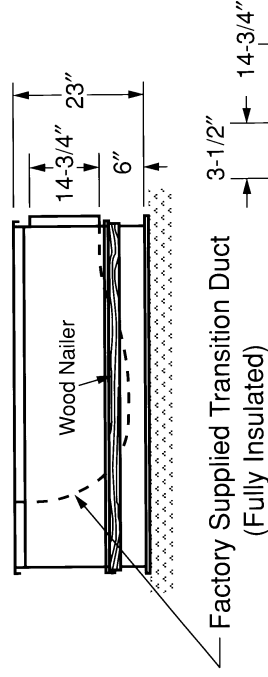
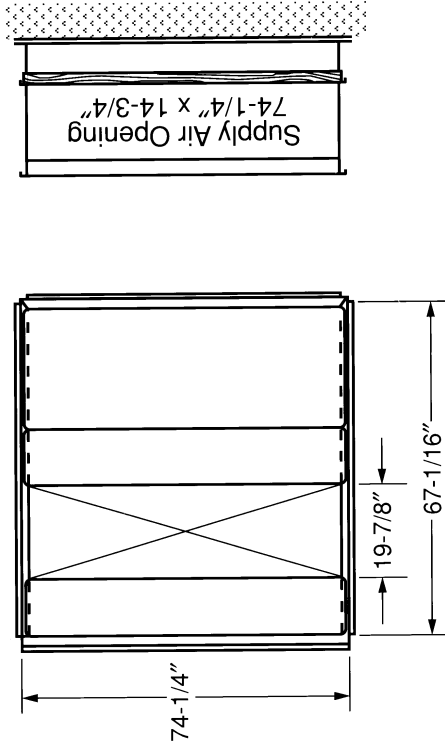
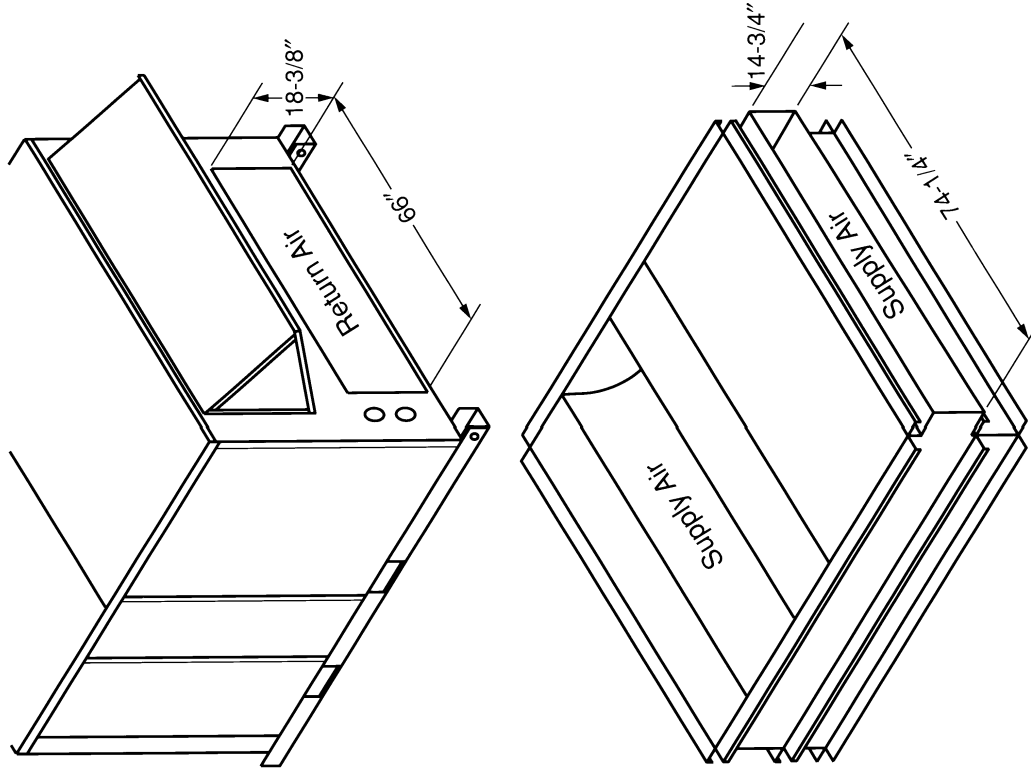


DATE	SUPERCEDES	drawing description	REV
	supercedes		50TJ501152
			-

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

HORIZONTAL SUPPLY/RETURN ADAPTER DIMENSION DRAWING



NOTE: The horizontal supply/return adapter roof curb has the same length and width as the standard roof curb.

FACTORY PRE-ASSEMBLED HORIZONTAL
SUPPLY/RETURN ADAPTER ACCESSORY
CRRFCURB013A00

SERVICE OPTION DIMENSION PRINT



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DATE	11/05/01	SUPERSEDES	10/14/97	48 & 50 SERIES HJ/TJ 015-028, TM016,020,025 SERVICE OPTION DETAILS	50TJ500352	REV B
<p>NOTES:</p> <ol style="list-style-type: none"> 1. CONVENIENCE OUTLET WIRING IS FIELD SUPPLIED. 2. ALL ACCESS DOORS ARE HINGED AND SECURED WITH 1/4 TURN LATCHES. 3. ALL FILTER ELEMENTS CAN BE REMOVED BY GRASPING FILTER SUPPORT TAB AND SLIDING OUTWARD. <div> <p>TOP</p> <p>REAR VIEW</p> <p>REAR VIEW WITH EXTERIOR DOOR REMOVED</p> <p>INDOOR COIL</p> <p>FILTER ACCESS DOOR</p> <p>IFM ACCESS DOOR</p> <p>FILTERS</p> </div> <div> <p>FRONT VIEW</p> <p>TOP</p> <p>COMPRESSOR SECTION DOOR</p> <p>CONTROL BOX SECTION DOOR</p> <p>DISCONNECT HANDLE</p> <p>2'-5 1/4" (743)</p> <p>1'-1 11/16" (347)</p> </div> <div> <p>END VIEW</p> <p>CONVENIENCE OUTLET</p> <p>0'-4 1/2" (114)</p> <p>1'-7 3/16" (487)</p> <p>FIELD POWER K.O. (REF)</p> <p>CONTROL POWER K.O. (REF)</p> <p>GAS ENTRY K.O. (REF)</p> </div>						